<u>IN THE CLAIMS</u>:

Please amend claims 26-28, 30-31, 33-37, and 41-53 and add new claims 54-56 as follows.

1-25. (Cancelled).

26. (Currently Amended) A method<u>, comprising:</u>

~~for balancing the load of resources in a packet-switched connection within a communication system, said system comprising processing units for performing communication, at least one load balancing unit for distributing the load to said processing units, and a data storage, said method comprising:~~

obtaining a current connection state as well as a current load state of <u>each of a plurality of</u> ~~said~~ <u>processors</u> ~~processing units~~ <u>configured to perform communication in a packet switched connection</u> from ~~said~~ <u>a</u> data storage;

selecting <u>on a per packet basis,</u> by ~~said~~ <u>a</u> load <u>balancer configured to distribute load to said</u> ~~balancing unit~~ <u>a</u> ~~processing unit~~ <u>processors, a processor</u> in such a manner that a respective next packet is distributed to one of said <u>processors</u> having a lowest load ~~on a per packet basis~~ irrespective of a specific connection to which ~~a respective~~ <u>this next</u> packet belongs; and

maintaining information about the load state of each ~~processing unit~~ <u>processor</u> so that said selecting ~~step~~ is performed by selecting <u>one of said processors</u> ~~a processing unit~~ to serve and process a respective packet based on the load state.

- 2 -

27. (Currently Amended) A method according to claim 26, wherein said data storage is accessed by said load balancer ~~load balancing unit~~.

28. (Currently Amended) A method according to claim 26, wherein said data storage is accessed by said ~~processing units~~ processors.

29. (Previously Presented) A method according to claim 26, wherein said information about the load state is maintained as a Boolean state.

30. (Currently Amended) A method according to claim 26, wherein a ~~processing unit~~ processor is selected in a round-robin fashion.

31. (Currently Amended) A method according to claim 26, wherein a supported service profile for each ~~processing unit~~ processor is maintained.

32. (Previously Presented) A method according to claim 31, wherein said supported service profile is used as additional selection criteria.

33. (Currently Amended) A method according to claim 26, wherein said load ~~balancing unit~~ balancer is configured to obtain a load state from each ~~processing unit~~ processor upon a hardware based mechanism.

34. (Currently Amended) A method according to claim 26, wherein said load balancer ~~balancing unit~~ is configured to obtain a load state from each ~~processing unit~~ processor upon a packet based mechanism.

35. (Currently Amended) A method according to claim 34, wherein a load state of a ~~processing unit~~ processor is inserted into a packet processed by said ~~unit~~ processor.

36. (Currently Amended) A method according to claim 34, wherein a packet returned by a ~~processing unit~~ processor is interpreted as a flag for a free resource.

37. (Currently Amended) A method according to claim 26, wherein excess traffic is redirected to another load balancer ~~balancing unit~~, said excess traffic being defined upon the number of active ~~processing units~~ processors.

38-40. (Cancelled)

41. (Currently Amended) An apparatus, comprising: ~~A device unit for balancing a load of each of multiple processing units performing a packet switched communication connection, comprising:~~

means storage configured to maintain for maintaining a load state of each of said a

plurality of processing units processors configured to perform communication in a packet

switched connection; and

selection circuitry configured means adapted to select on a per packet basis, a

processing unit processor on the basis of a respective its load state in such a manner that

a respective next packet is distributed to the selected processor has a lowest load among

said processors on a per packet basis irrespective of a specific connection to which this

next a respective packet belongs.

42. (Currently amended) An apparatus A device according to claim 41, wherein a

load state of a processor processing unit is contained in a table.

43. (Currently amended) An apparatus A device according to claim 41, wherein a

load state of a processor processing unit is expressed as a Boolean value.

44. (Currently amended) An apparatus A device according to claim 41, wherein a

load state of a processor processing unit is expressed as value which corresponds to the

percentage of load.

45. (Currently amended) An apparatus A device according to claim 41, wherein

said selecting means selection circuitry is adapted configured such that a processor

processing unit is selected also on the basis of a parameter indicating the service profile

supported by a respective processing unit processor.

46. (Currently amended) An apparatus A device according to claim 45, wherein

said parameter is contained in a table.

47. (Currently amended) An apparatus A device according to claim 41, further

comprising

data insertion circuitry means adapted configured to insert a communication

connection state into a packet to be routed.

48. (Currently amended) An apparatus A device according to claim 41, wherein

the processors processing units are comprised of multicore digital signal processing

means elements having a shared data storage for all cores, whereby said device comprises

a first level of load balancing for selecting a digital signal processing means and a second

level of load balancing for selecting a single core.

49. (Currently amended) An apparatus A device according to claim 41, further

comprising

a switch configured means for redirecting to redirect excess traffic to another

device apparatus, wherein said excess traffic is defined upon the number of active

processors processing units.

- 6 -

50. (Currently amended) A system configured to:

obtain a current connection state as well as a current load state of each of ~~the processing units~~ a plurality of processors configured to perform communication in a packet switched connection from data storage;

select on a per packet basis one of said processors, by ~~said~~ a load balancer configured to distribute load to said ~~balancing unit a processing unit~~ processors in such a manner that a respective next packet is distributed to the selected processor has a lowest load ~~on a per packet basis~~ irrespective of a specific connection to which ~~a respective~~ this next packet belongs; and

maintain information about the load state of each processor ~~processing unit~~ so that said selecting comprises selecting one of said processors ~~a processing unit~~ to serve and process a respective packet based on the load states.

51. (Currently Amended) A computer program embodied on a computer readable medium, the computer readable medium storing code comprising computer executable instructions configured to perform a method ~~for balancing the load of resources in a packet switched connection within a communication system, said system comprising processing units for performing communication, at least one load balancing unit for distributing the load to said processing units, and a data storage, said method~~ comprising:

- 7 -

obtaining a current connection state as well as a current load state of <u>each of a</u> plurality of ~~said~~ <u>processors</u> ~~processing units~~ <u>configured to perform communication in a packet switched connection</u> from said data storage;

selecting <u>on a per packet basis,</u> by ~~said~~ <u>a</u> load <u>balancer configured to distribute load to said</u> ~~balancing unit a processing unit~~ <u>processors, one of said processors</u> ~~on a per packet basis~~ <u>in such a manner that a respective next packet is distributed to said selected one of said processors has a lowest load</u> irrespective of a specific connection to which a respective packet belongs; and

maintain~~ing~~ <u>information</u> about the load state of each <u>processor</u> ~~processing unit~~ so that said selecting ~~step~~ <u>comprises</u> selecting <u>one of said processors</u> ~~a processing unit~~ to serve and process a respective packet based on the load state.

52. (Currently Amended) A system comprising

a <u>plurality of processors</u> ~~processing units~~ for performing communication <u>in a packet switched connection</u>;

at least one load <u>balancer configured to distribute</u> ~~balancing unit for~~ distributing the load to said <u>processors</u> ~~processing units~~; and

a data storage,

wherein the load <u>balancer</u> ~~balancing unit~~ is configured to:

obtain a current connection state and a current load state of <u>each of</u> said <u>processors</u> ~~processing units~~ from said data storage,

- 8 -

maintain information about the load state of each of said processors ~~processing units~~, and

select a processor ~~a processing unit~~ in such a manner that a respective next packet is distributed to the processor having a lowest load ~~on a per packet basis~~ irrespective of a specific connection to which a respective packet belongs by selecting one of the processors ~~processing units~~ to serve and process a respective packet based on the load state.

53. (Currently Amended) A~~n~~ apparatus, comprising a load balancer, wherein the ~~balancing unit is~~ load balancer is configured to:

obtain a current connection state and a current load state of each of a plurality of processors ~~processing units~~;

maintain information about the load state of each of said processors ~~processing units~~; and

select a processor ~~a processing unit~~ on a per packet basis in such a manner that a respective next packet is distributed to a processor having a lowest load irrespective of a specific connection to which ~~a~~ this next respective packet belongs by selecting one of the processors ~~processing units~~ to serve and process a respective packet based on the load state of the selected processor ~~processing unit~~.

54. (New) An apparatus, comprising:

maintaining means for maintaining a load state of each of multiple processors performing a packet switched communication connection; and

- 9 -

selecting means for selecting, on a per packet basis, one of the processors on the basis of its load state in such a manner that a respective next packet is distributed to a processor having a lowest load irrespective of a specific connection to which a respective packet belongs.

55. (New) An apparatus according to claim 54, further comprising

means for inserting a communication connection state into a packet to be routed.

56. (New) An apparatus according to claim 54, further comprising

means for redirecting excess traffic to another device, wherein said excess traffic is defined upon the number of active processors.